Japan's Fiscal Policy: Sustainability of Government Deficits

Toshihiro Ihori*

The purpose of this paper is to analysis the Japanese fiscal policy particularly from the viewpoint of the sustainability problem of government bond policy and the fiscal reconstruction movement in Japan. This paper first summarizes Japan's fiscal policies in the 1990s. Then, we investigate the macroeconomic impact of government debt and fiscal difficulties of heavy dependency of debt finance in the public sector. We find that fiscal sustainability may become a serious issue. We also explore political constraints to the fiscal reconstruction movements. In order to realize successful fiscal reconstruction, the central government needs to restrain lobbying activities of local political groups.

Keywords: Japan's fiscal policy, Sustainability, Deficits

JEL Classification: H61, H62, H63

I. Introduction

The purpose of this paper is to analysis the Japanese fiscal policy particularly from the viewpoint of the sustainability problem of government bond policy and the fiscal reconstruction movement in Japan. Japan's fiscal situation is the worst of the G7 counties now. This is partly due to a slowdown of economic growth in the 1990s. When national income does not grow much, tax revenue will not increase either. On the contrary, government spending has

*Professor, Department of Economics, University of Tokyo, Hongo, Tokyo 113-0033, Japan, (Tel) +81-3-5841-5502, (Fax) +81-3-5841-5521, (E-mail) ihori@e.u-tokyo.ac.jp. An earlier version of the paper was presented at the Conference on February 2, 2004, Seoul, Korea. I would like to thank Joon Koo Lee and other participants for their useful comments.
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been gradually raised due to political pressures of interest groups, resulting in large budget deficits. In 1997, the Japanese government implemented the Fiscal Structural Reform (reducing budget deficits). However, in 1998, it stopped the reform and implemented tax reductions and increases in public investment (the traditional Keynesian counter-cyclical policy) because of severe economic and financial situation, and the defeat of the governing party (the Liberal Democratic Party; hereafter the LDP) in the upper house election. It is also noted that although the Japanese government bonds have been issued largely, their yields are the lowest among G7 countries in the bond market.

In such a situation, it would be useful to consider the following points. 1) What would cause a rapid increase in fiscal deficits? 2) What are the macroeconomic effects of government deficits? 3) How did the government raise revenue by issuing bonds in the 1990s? 4) Why would the yields of Japanese government bonds be so low in spite of their large issue? and 5) What would be the crucial point of attaining successful fiscal reconstruction in the future? Based on theories in macroeconomics and financial economics, this paper investigates these questions using Japanese fiscal data. We intend to incorporate the political aspect of fiscal policy into these analyses. This paper will thus evaluate the current growing dependence on government bonds for covering financial deficits, the recent movements of Japanese fiscal reform and debt management policy.

This paper consists of six sections. In Section II, we summarize Japanese fiscal policy in the recent years. In Section III, we investigate the macroeconomic effects of Japanese fiscal policy in the 1990s. Then, we analyze the problem of sustainability of government deficits in Section IV. Section V discusses the soft-budget problem and political constraints in the intergovernmental finance between the local and central governments. Finally, concluding remarks follow in Section VI.

II. Japanese Fiscal Policy in the 1990s

Japan's fiscal situation in 2003 is the worst of any G7 country, having deteriorated rapidly with the collapse of the 'bubble economy' in 1991 and the deep and prolonged period of economic

recession which ensued, and from which recovery has been slow and modest despite the implementation of counter-cyclical policy. In this section let us first summarize briefly the movement of fiscal deficits and fiscal reform in Japan. See Ihori, Doi, and Kondo (2001) and Ihori and Doi (2001).

Traditionally, the Japanese government has followed a balanced budget policy. The balanced budget was maintained until 1965, when national bonds were first issued in the postwar period. The gap between government expenditures and tax revenues, which corresponds roughly to fiscal deficits, began to expand rapidly at the outbreak of the first oil shock in 1973. Asako *et al.* (1991) presented good description of the rise and fall of deficits in the 1970s and the 1980s in Japan. They interpreted that the increase of deficits in the second half of 1970s as a combination of several factors. The larger fiscal deficits resulted from the major burst of new spending on social welfare programs in the first half of 1970s and on public investment in the second half of 1970s and the lack of tax revenues reflecting the slowdown of economic growth.

Since the increase in the budget deficit in 1975, deficit reduction has become one of the most important objectives of economic policy. Eliminating fiscal deficits was officially called 'fiscal reconstruction.' The Ministry of Finance (MOF) constantly pressured each ministry of the government to hold down expenditures when drawing up the initial budget. Since 1982, the principle of zero growth requests (zero ceiling) has been imposed on budget requests. The ceiling was sharply tightened to negative increases in the late 1980s.

Furthermore, the important step was the establishment of the Ad Hoc Council on Administrative Reform (Rincho) in 1981. Rincho submitted five reports from July 1981 to March 1983 and recommended a number of important reforms to trim overly expanded portions of the government bureaucracy: privatization of three major public corporations cuts in spending on public works and so on. As the result of such policies, the growth of government expenditure has indeed been restrained.

Along with severe spending constraints imposed by Rincho to promote the goal of reducing deficits, The MOF began to fall back on various small measures to increase tax revenues. The MOF did not however pursue major tax reforms that would have greatly altered the basic tax structure until late 1980s. The value added

tax (VAT) was finally introduced in the tax structure in April 1989, after long-standing trial and error.

The substantial amount of natural tax increases has been produced from 1986 to 1991. The abnormal hike of stock and land prices generated a great amount of tax revenues in the form of the corporate tax, the security transaction tax, capital gains tax, etc. Such a large amount of natural tax increases was of great help in reducing accumulated deficits, which in turn achieved the target of fiscal reconstruction by 1991. The sharp rise of tax revenues, caused by a bubble phenomenon, looks like "windfall." "Windfall" tax increases have played a vital role in achieving the MOF's target in the second half of 1980s.

After a "bubble economy" was broken in 1991, natural tax decreases were incurred to generate revenue. At the same time, the politico-economic pressures for larger expenditure budgets and counter-cyclical packages of fiscal measures intensified. Responding to them, the MOF employed some measures for stimulating the aggregate demand. However, these counter-cyclical measures were not so effective, resulting in an increase in the fiscal deficit. The planned bond dependency rate rose from a low-point of 7.6% in FY 1991 (initial) to 18.7% in FY 1994 (initial). The reality was still worse. The implementation of counter-cyclical fiscal policy through Supplementary-Budgets in-year led to further borrowing still, and the actual bond-dependency rate was more than 22% in FY 1994.

The state of the national finances deteriorated rapidly throughout FY 1995 and FY 1996. The MOF was forced to borrow 22.0 trillion to finance a deficit swollen by the large fiscal stimulus in September 1995, resulting in a bond-dependency ratio of 28.2%, its highest level since 1980. In FY 1996 the planned issue of 10.1 trillion of special deficit bonds exceeded all previous experience. Despite the gravity of the fiscal situation the initial budgets for FY 1996 and 1997 nevertheless provided for further increases of expenditure, of 5.8% and 3.0%. Not only were fixed costs for prior commitments rising: those for discretionary expenditures continued to rise as well. The servicing of that debt absorbed more than a fifth of the total General Account Budget. Limiting the latter to 1.5% ceiling in FY 1997 was claimed by the Government and the MOF as a sign of new fiscal austerity.

FY 1998 initial budget was drawn up making utmost efforts to

deal with the current economic and financial situation within the framework of the Fiscal Structural Reform Act. According to the MOF, fiscal reconstruction was equivalent to the achievement of the three policy-objectives of

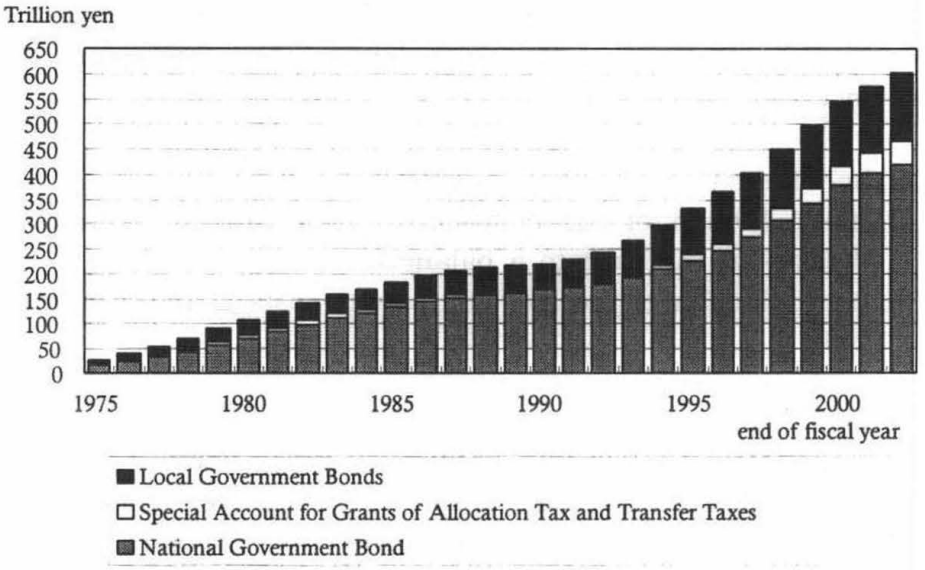
(i) the elimination of special balanced bonds
(ii) the reduction of the bond-dependency ratio to reduce fiscal deficits on the path to a balanced budget
(iii) the reduction of the size and service-costs of the accumulated debt

The initial budget for FY 1998 marked the beginning of a new realism in the control of public spending promised in PM Hashimoto's 'Vision' of fiscal structural reform. The Fiscal Structural Reform Act, which was implemented in November 1997, had three targets to be achieved by FY 2003.

(i) the elimination of special balanced bonds
(ii) the reduction of general government debt-GDP ratio to 60%
(iii) the reduction of general government deficit-GDP ratio to 3%

General expenditures were down 1.3% over FY 1997 initial budget, the largest decline in history. However, in the light of severe economic and financial situation, the Fiscal Structural Reform Act was revised in May 1998, so that income tax reduction would be easily implemented. Furthermore, since the LDP lost the upper house election in July 1998, new PM Obuchi changed the target of fiscal policy. Namely, further tax reductions and increases in public works have been implemented to stimulate the aggregate demand, following the traditional Keynesian counter-cyclical policy. The Fiscal Structural Reform Act is not regarded as a legal constraint any more.

In FY 1998 the issue of special deficit bonds was 21.7 trillion yen due to several fiscal policy measures. By the end of FY 1999, the accumulated debt was 347 trillion (168 trillion yen at the end of FY 1990). Figure 1 presents the accumulation of outstanding of bonds. Also local government bonds rapidly increase in the 1990s. The increase of outstanding of local bonds was from 52 trillion yen at the end of FY 1990 to 130 trillion yen at the end of FY 1999. In addition, borrowing in the Special Account for Grants of Allocation



Source: Khori and Doi (2001).

FIGURE 1

OUTSTANDING OF GOVERNMENT BONDS

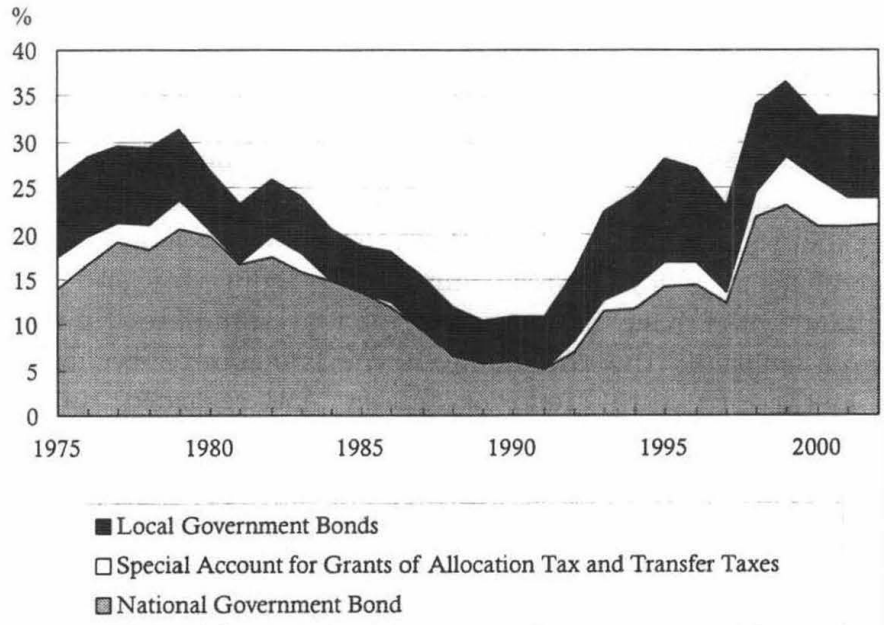


FIGURE 2

BOND DEPENDENCE RATIO

Tax and Transfer Taxes increased.[1] The increase was from 1.5 trillion yen at the end of FY 1990 to 30 trillion yen at the end of FY 1999. By the end of FY 1999, total outstanding of these bonds and borrowing was 506 trillion yen (222 trillion yen at the end of FY 1990).

Bond dependency ratio rapidly rose in the latter of 1990s. Figure 2 shows bond dependency ratio in the consolidated account, that is, the net total of the General Account, the Special Account for Grants of Allocation Tax and Transfer Taxes, and the ordinary account (net total) of local governments. The figure was 10.9% in FY 1990. In FY 1999, this rose to 40.2%. The deficit on the general government financial balance in FY 1999 was 10.0% of GDP, with a gross debt of over 108%. The inclusion of the surplus on social security reduced that deficit to 7.8%, and even that figure was highest among G7 countries.

Let us compare some fiscal indicators in the 1990s among G7 countries.[2] On general government financial balance as a percentage of GDP, Japan's figure was +2.9% in 1990.[3] But this significantly drops to −7.9% in 2000. In contrast, the figure in other G7 countries almost improved in the 1990s. In the U.S., the improvement is from −2.7% (in 1990) to +0.9% (in 2000). In the U.K., it was −1.5% in 1990 and is +0.8% in 2000. In Germany, it improves from −2.1% in 1990 to −1.2% in 2000. In France, it was −1.6% in 1990 and is −1.7% in 2000. In Italy, it rose from −11.2% (in 1990) to −1.6% (in 2000). In Canada, the improvement is from −4.5% (in 1990) to +1.6% (in 2000).

On general government gross debt as a percentage of GDP in the 1990s, Japan's figure significantly increases from 61.4% (in 1990) to 114.1% (in 2000). The increase of the figure in other G7 countries is smaller than that in Japan. In the U.S., this figure was 55.3% in 1990 and it is 57.1% in 2000. In the U.K., it increases from 39.1% in 1990 to 51.2% in 2000. In Germany, the increase is from 43.2% (in 1990) to 61.7% (in 2000). France's figure was 40.2% in 1990 and is 64.6% in 2000. In Italy, it was

[1]We will explain the relationship among national government bond, local government bonds, and the Special Account for Grants of Allocation Tax and Transfer Taxes in Section III.

[2]The source of these data is OECD (1999).

[3]The general government includes the central government, local government, and social security fund.

105.4% in 1990 and it is 115.2% in 2000. In Canada, the increase is from 71.5% (in 1990) to 82.5% (in 2000). A comparison of these fiscal indicators for Japan and six other industrialized countries shows the fiscal situation in Japan is worse than that in other countries.

The concern for sustainability of fiscal deficits is a background for the fiscal reconstruction and structural reform movement by the current Koizumi Administration. The "Structural Reform of the Japanese Economy: Basic Policies for Macroeconomic Development" was decided upon after acceptance of the report compiled by the Council on Economic and Fiscal Policy, an advisory council to the Prime Minister. In this report the core of policies for the structural reform of the economic society was made clear. In part of the policies shown, a goal to limit the amount of government bond issues to less than 30 trillion yen in the FY 2002 budget, and afterwards achieve a primary surplus, was set to show that there exists a necessity to take on full-scale measures towards fiscal consolidation. However, in order to cope with the bad situation of macro-economy, 1.8 trillion yen of the advance tax cuts was employed with a view to strengthening the competitiveness of industry, facilitating a smooth transference of assets to the next generation, promoting a shift from "saving to investment," advancing effective land use, and so on. The goal to limit the amount of government bond issues to less than 30 trillion yen in the FY 2002 budget was finally abandoned. In the FY 2003, new government bond issues are 36.4 trillion yen and the bond dependency rises to 44.6%.

III. Macroeconomic Effects of Fiscal Policy

Based on the above discussions, we first examine the macro-economic effects of fiscal policy empirically. There exist competing arguments on the efficacy of fiscal policy in the 1990s. One hypothesis is that the effects of fiscal policy were very large and hence recession would have deepened without fiscal expansion. On the contrary, alternative is that fiscal policy did not have an expansionary effect enough to push up the macroeconomic activity and hence unlimited public expenditures simply made the fiscal crisis worse. These opposing arguments, which lead to different

policy implications, are mostly due to different understanding of the macroeconomic analytical framework. Namely, the former hypothesis is based on the conventional Keynesian model of liquidity-constrained agents, while the latter is based on the neoclassical model of rational agents.

Although there have been a lot of controversial arguments on the effectiveness of fiscal policy in the 1990s, statistical evaluation has not been done well. Due to limited availability of time series data concerning Japan's fiscal policy in the 1990s, it is difficult to estimate quantitatively how the Keynesian fiscal policy was really effective during the period.

Using the VAR method, Ihori, Nakazato, and Kawade (2002) showed that fiscal policies have generated limited effects on output in Japan. Namely, tax policies did not have a stronger effect than changes in government expenditure. Furthermore, the effect of fiscal policies was too marginal to recover macroeconomic activities, which is consistent with the latter view based on the neoclassical model of rational agents.

Therefore, we may say that the multiplier effect of public works has become very low in recent years, and hence the efficacy of stimulating aggregate demand by using public works is controversial. As the allocation of public works is not appropriately determined, it could not stimulate private consumption or investment. The resulting cost is a huge increase in government deficit in the 1990s. There are some empirical studies on the productivity effect of public capital in Japan (Iwamoto 1990; Asako *et al.* 1994; Mitsui and Ohta 1995; Doi 1998; Yoshino and Nakajima 1999; Ihori and Kondo 2001; and so on). They commonly conclude that public capital was productive but its productivity has declined recently. Results in 1990s suggest that the 'non-Keynesian' effect has some relevancy in Japan. When the fiscal situation becomes very serious, fiscal reconstruction may stimulate private consumption and investment due to the 'non-Keynesian' effect.

IV. Sustainability of Government Bond in Japan

By the end of FY 2002, the long-term debt outstandings of central and local governments are projected to soar up to 705 trillion yen or over 140% of GDP. The steep increases in govern-

ment debt give rise to the concern of its future burden. Namely, the resulting increase in government deficits seriously raises doubt about the long-run sustainability of fiscal policy. In this section we investigate whether the cumulative accumulation of deficits could be consistent with long-term government solvency.

A simple way to evaluate the fiscal sustainability problem is to focus on the Japanese Government Bond (JGB) market.[4] If creditors fear that the government is going to be in a debt trap, the long-term interest rate begins to rise, reflecting an enlarged credit risk. In this regard, despite its weakening credit ratings, the 10-year JGB nominal yield of about 1.0% in 2003 remains lower than the U.S. bond yield of about 1.8% registered during the Great Depression. So far the myth that the JGBs are risk-free has been somehow propagated. This episode may imply that Japan's government solvency is not a serious issue right now.

However, we also have to pay attention to the possibility that the performance in the yield of the JGB may not accurately reflect its credit risk. The Japanese banking sector continues to purchase the JGBs simply because short-term capital gains from the JGBs have been an easy option to offset the existing stock losses.

The question of whether Japan's fiscal policy has been sustainable in the sense of being consistent with an intertemporal budget constraint has been concerned. There have been a few analyses on the sustainability problem in the government debt in Japan. So long as we use the data until 1990, it seems that the government debt has been sustainable in Japan. However, as explained in Section I, deficits have increased rapidly since 1990. We are not sure if the present fiscal system in Japan may be sustainable in the long run.

Ihori, Nakazato, and Kawade (2002) attempted a standard approach to test the fiscal sustainability condition, using the methodology of Hamilton and Flavin (1986). They conducted the empirical analysis for the Japanese fiscal data from 1957 to 1999. To conduct the test, the values for the nominal growth rate, n, and the nominal interest rate, r, must be specified. Their strategy was to set various values for $r-n$ and to check whether the results are

[4]The JGB means the bond issued in the General Account of the national government. It dose not include borrowing in the other special accounts of the national government.

sensitive to the values chosen. The estimated results imply that the null hypothesis cannot be rejected at a 5% significance level, suggesting that government solvency was not a serious problem until FY 1996. On the contrary, the result for the period 1957-97 rejects the null hypothesis when $r-n$ is above 0.05, and the results for the period 1957-98 and the period 1957-1999 also reject the null hypothesis when $r-n$ is above 0.04. These observations indicate that fiscal sustainability may become a serious issue. The longer the sample period, the more likely we face the fiscal crisis. It follows that further fiscal expansion will cause the public debt crisis to occur in the near future.

Bohn (1998) proposed a new method different from existing tests for sustainability of government debt. According to Bohn (1998), the test has better properties than the tests based on estimating a transversality condition and on cointegration tests. We apply the Bohn (1998)'s method to tests on sustainability of Japanese government debt.

Bohn (1998) showed that the condition that fiscal policy satisfies the intertemporal budget constraint, *i. e.* the condition on sustainability of government debt, is that the primary surplus to GDP(s_t) increases with the ratio of (start-of-period) debt to GDP(d_t). Strictly speaking, when we can express a relation between the two as

$$s_t = f(d_t) + \mu_t \tag{1}$$

(Suppose other determinants, μ_t, is bounded and the present value of future GDP is finite), government debt satisfies a transversality condition if there is a debt-GDP ratio d^* such that $f'(d_t) \geq \beta > 0$ for all $d_t \geq d^*$ (where β is a positive constant). Bohn (1998) found that an increase in the ratio of government debt to GDP raises the ratio of primary surplus to GDP for 1916-95 in the U.S. It suggests that U.S. fiscal policy is satisfying an intertemporal budget constraint.

Doi and Ihori (2003) focus on the consolidated government including the General Account of the national government, the Special Account for Grants of Allocation Tax and Transfer Taxes, and (net total of) local governments. We set the sample period as FY 1956-2000 and FY 1965-2000; FY 1965 is the year that the central government begun to issue debt in the General Account after the WWII. We can get data on GDP, and the primary surplus and the government debt in the consolidated account for FY

1955-2000.[5]

We consider estimation of equation (1). Bohn (1998) sets $f(d_t)=\beta d_t$ as a special case of equation (1), that is,

$$s_t=\beta d_t+\alpha_0+\alpha_G \mathrm{GVAR}_t+\alpha_Y \mathrm{YVAR}_t+\varepsilon_t, \tag{2}$$

where GVAR_t is a measure of temporary government expenditure, YVAR_t is a measure of cyclical variations in GDP. According to Barro (1986), he defines $\mathrm{GVAR}_t \equiv (G_t-G^*_t)/Y_t$, and $\mathrm{YVAR}_t \equiv (U_t-U^m)(G^*_t/Y_t)$, where G_t, G^*_t, U_t, and U^m denote real government expenditure, the permanent component of G_t, the unemployment rate and the median of U_t for the sample period, respectively. We make data on G^*_t in Japan by using Beveridge and Nelson (1981) decomposition of real government expenditure into temporary and permanent components. For FY 1955-2000, U^m is equal to 0.021.

Like Bohn (1998), assume $f(d_t)=\beta d_t+\gamma(d_t-\bar{d})^2$, then

$$s_t=\beta d_t+\gamma(d_t-\bar{d})^2+\alpha_0+\alpha_G \mathrm{GVAR}_t+\alpha_Y \mathrm{YVAR}_t+\varepsilon_t, \tag{3}$$

where $\bar{d}$ denotes the average of d_t for the sample period. We estimate equations (2) and (3).

In estimating equations (2) and (3), there exists serial correlation in the error terms of these equations. Hence we use the maximum likelihood estimation with serial correlation in the error terms; $\varepsilon_t=\rho\varepsilon_{t-1}+\mu_t$. Estimates of equation (2) are reported in regressions (I), (II), (V), and (VI) in Table 1. Also estimates of equation (3) are reported in regressions (III), (IV), (VII), and (VIII) in Table 1. Regressions (I)-(IV) show results for the sample period FY 1956-2000, and regressions (V)-(VIII) show results for the period FY 1965-2000. ρ in Table 1 denotes the estimator of first order autocorrelation of the error term. For the sample period FY 1956-2000, estimators of in the linear equation (2) are not significant. Also estimators of the first-order and second-order terms in the quadratic equation (3) are insignificant. They suggest that we cannot find a positive response of the primary surplus-GDP ratio (s_t) to changes in the debt-GDP ratio (d_t) in the consolidated government for FY 1956-2000.

[5]Ihori, Doi, and Kondo (2001) estimated the equation by using data on only the General Account of the national government for FY 1955-98.

TABLE 1

TEST FOR SUSTAINABILITY

Dependent variable: s_t

Maximum likelihood estimation with annual data

	(I)	(II)	(III)	(IV)	(V)	(VI)	(VII)	(VIII)
Sample	1956-2000				1965-2000			
Intercept	-0.014	-0.0065	-0.0223	-0.0069	-0.0338	-0.0206	-0.0493	-0.0213
	(-0.807)	(-0.389)	(-1.109)	(-0.409)	(-1.740)	(-1.191)	(-2.545)	(-1.240)
d_t	0.0069	0.0013	0.0546	0.0075	0.0315	0.0187	0.0949	0.0292
	(0.204)	(0.038)	(1.032)	(0.172)	(0.879)	(0.553)	(2.072)	(0.712)
GVAR	-0.0417	-0.0181	-0.0496	-0.0174	-0.0492	-0.0201	-0.0665	-0.0185
	(-2.492)	(-2.197)	(-2.843)	(-1.983)	(-2.398)	(-2.259)	(-2.996)	(-1.947)
YVAR	-1.2417		-1.8808		-1.4489		-2.6565	
	(-1.602)		(-2.106)		(-1.558)		(-2.370)	
$(d_t - \overline{d})^2$			-0.1139	-0.0168			-0.1528	-0.0319
			(-1.304)	(-0.230)			(-1.831)	(-0.439)
ρ	0.8932	0.8806	0.9066	0.8824	0.8567	0.8480	0.8329	0.8473
	(14.722)	(13.992)	(14.710)	(13.901)	(10.475)	(10.679)	(9.732)	(10.736)
log L	144.251	142.997	145.126	143.023	111.382	110.200	112.948	110.297
adj. R^2	0.809	0.810	0.800	0.805	0.786	0.788	0.790	0.770
std. error	0.0114	0.0113	0.0117	0.0115	0.0116	0.0118	0.0115	0.0121
D.W.	1.193	1.217	1.182	1.212	1.302	1.328	1.339	1.332

Notes: The above parentheses indicate the t-values. D.W. denotes Durbin-Watson statistic.

For FY 1965-2000, the estimator β is significantly positive in regression (V). As the estimator of YVAR is not significant in this regression, we exclude YVAR and reestimate the equation (2). Its result is reported in regression (VI). The estimator of β is insignificant in regression (VI). Similarly, estimators of the first-order and second-order terms are insignificant in regression (VIII).[6] They imply that we cannot obtain the result that Japanese government debt satisfies a transversality condition for FY 1965-2000.

From the above analysis, we cannot reject the hypothesis that the Japanese national debt has not been sustainable. We give an intuitive explanation of the fact. We draw a scatter plot of s_t against d_t in Figure 4. Until the early 1990s, the Japanese fiscal policy held the quadratic relation between the two. Recently, the Japanese fiscal policy deviates from the relation excessively. This is one of the reasons we obtain the above result in this section. Japan has two serious difficulties in terms of Bohn's theoretical framework. First, the Japanese primary surplus is apparently a decreasing function of the debt-GDP ratio since 1990 and hence it does not satisfy Bohn's test. Second, the rate of interest is greater than the growth rate in Japan in the 1990s. Hence, it is important to reduce the government deficit in the near future.

By the way, some could argue that the central and local governments, although heavily indebted, also have credits and assets. The total value of the government-held tangible and financial assets—those of the central government, local governments and social security funds—is about ¥900 trillion, far more than the ¥700 trillion government debt. It is therefore argued that government debt is not a great concern because the net asset position is positive.

Public pension funds, in particular, now hold assets of about ¥200 trillion, a sum amounting to about two-thirds of the central government's outstanding debt load. The funds are creating net surpluses because contributions exceed payouts. So, in terms of the general government (the central and local governments plus the public pension funds), the fiscal deficit is not extremely large. The

[6]Though the coefficient of the first-order term is significantly positive in regression (VII), the same coefficient is not significant in regression (VIII) excluding YVAR. It means that the result in regression (VII) is not robust.

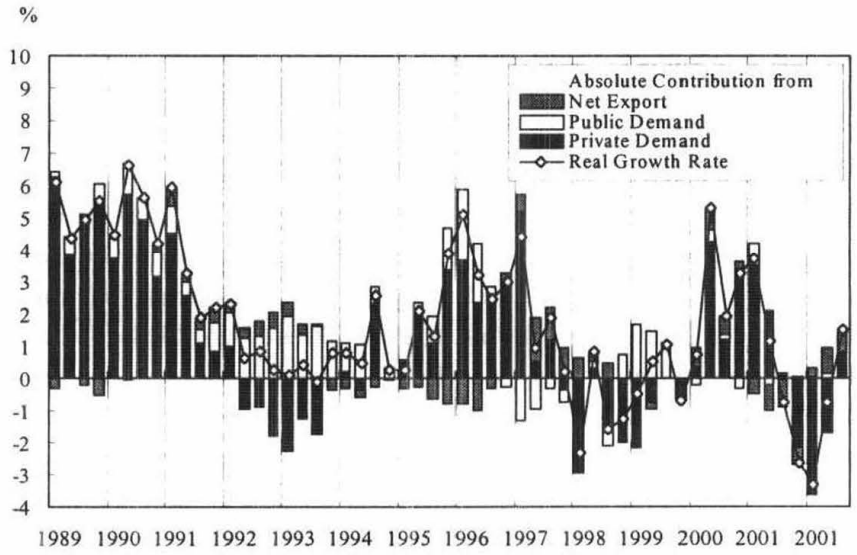


FIGURE 3
GROWTH RATE OF REAL GDP

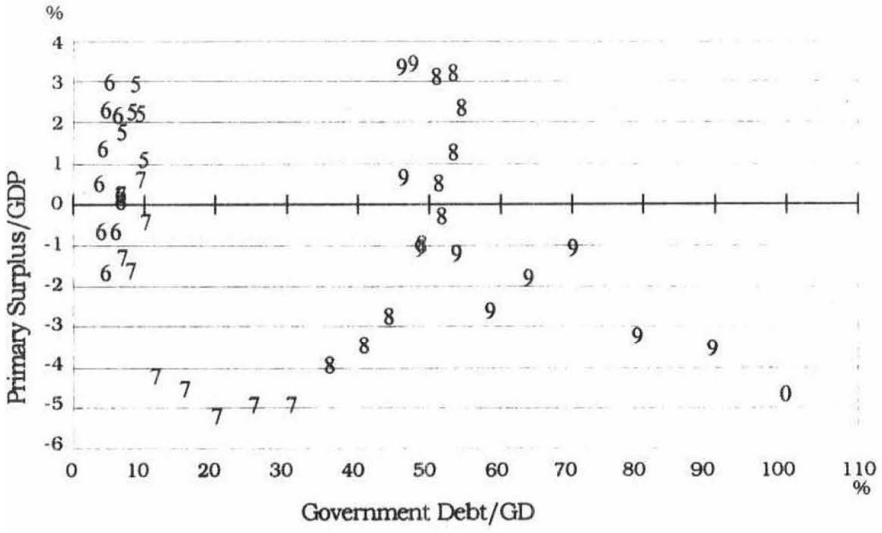


FIGURE 4
PRIMARY SURPLUS AND GOVERNMENT DEPT
1955-2000

increasing reserves in the public pension funds help to offset, as it were, the increasing government debt. On balance, therefore, Japan's net fiscal position does not look so serious.

To be sure, the sale of government-held assets translates immediately into government revenue and thus reduces the debt, of the balance of the public bonds. However, the argument that debt is not much of a problem in net terms raises two questions.

One question is just how many government assets could actually be sold. Many government-held tangible assets exist in the form of public infrastructure, such as roads. These would be hard to sell. By the same token, many of the financial assets, held in pension funds, are also unsalable. The pension reserves, of course, are intended to be dedicated to future payments to pensioners. The pension insurance premiums collected from working people must be paid some time in the future, in the same way that public bonds must be redeemed as they mature. The pension fund is thud different from tax revenues, which the government can use freely.

Another question is how these public pension funds will develop over the long haul. The indicators are that balance of pension funds will deteriorate as the birthrate declines and the population ages. Perhaps 20 or 30 years from now, this could lead the overall government deficits to assume even more serious proportions.

V. Local Interest Groups and Soft-Budget Problem

In addition to the concern that the accumulation of public debts may well be unsustainable, the expansionary fiscal policy in the 1990s has another problem. Prolonged excessive budget deficits are harmful for the economy in the sense that excessive deficits today mean higher political privileges tomorrow, which results in delay of restructuring the fiscal system in a more efficient way in the long run.

In Japan, the central government provides heavy financial support to local governments, amounting to about 5% of GDP every fiscal year due to the soft-budget problem in the intergovernmental financing. Many local interest groups (or politicians) seek to obtain more money from the central and local governments through a variety of lobbying activities. They may be regarded as one of the most powerful interest groups in Japan. From the data on Japan's

public works, in comparison with other countries' figures, we may say that local residents in Japan have larger privileges than in other countries, reflecting an influential role of their interest groups. In the 1990s, the government deficits in Japan increased rapidly because local interest groups living in the rural and agricultural area got a lot of transfers mainly in the form of public works. Agriculture-related public capitals and fishing ports and measures for flood control and conservation of forests are being accumulated too much due to lobbying activities of local interest groups.

Local Allocation Tax Grants, as Shibata (1993) described, is transferred from the national government to most of local governments without specifying its use. The national government reserves a certain ratio of national tax revenue in the General Account as a common fund for local governments. It distributes funds to each local government according to their fiscal needs and local revenue sources, based on a detailed equation determined by the national government, particularly the MPHPT. In the General Account of the national government, Local Allocation Tax Grants distribution amounts to a certain percentage of national tax revenues that are determined by the Local Allocation Tax Law. It includes 32% of the revenue from the personal income tax and the liquor tax, 35.8%of the revenue from the company income tax and 29.5% of the revenue from the consumption tax, and 25% of the revenue from the tobacco tax. Total amount granted as Local Allocation Tax Grants in one fiscal year is once transferred from the General Account to the Special Account for Grants of Allocation Tax and Transfer Taxes.

The amount distributing to each local government is determined as follows. Total amount is distributed 94% as an ordinary allocation tax and 6%as a special allocation tax. The latter compensates for special financial needs such as expense for disaster reconstruction and unforeseen events. The former to each local government is calculated according to the Basic Financial Needs and the Basic Financial Revenue. It is distributed to local governments whose Basic Financial Needs exceed their Basic Financial Revenue. It is not paid to local governments whose Basic Financial Needs are less than their Basic Financial Revenue.

The ratio of national taxes to local taxes within the total tax burden borne by Japanese citizens is approximately 2 to 1, but in

order to achieve balanced finances among all prefectures, a fixed percentage of national taxes are provided as Local Allocation Tax Grants to local governments for unrestricted use. Furthermore, the national government uses subsidies to make disbursements to local governments for specific purposes. Consequently, the final ratio on an expenditure basis is the reverse: namely, approximately 1 to 2. In short, the financial resources needed by local bodies are transferred from the national government to local governments.

In the second half of 1980s, national and local tax revenues increased and their Basic Financial Revenue that is related to local tax revenues. As we explained above, the total amount of Local Allocation Tax Grants increased automatically. If the calculation of the Basic Financial Needs and the Basic Financial Revenue was not revised, shortfalls of local governments, that is, the difference between the Basic Financial Needs and the Basic Financial Revenue, would have decreased. So the Ministry of Home Affairs (MHA; the present MPHPT) revised the calculation to increase only the Basic Finance Need, in proportion to total amount of Local Allocation Tax Grants.

In the 1990s, national and local tax revenues decreased and their Basic Financial Revenue that is related to local tax revenues. Then total amount of Local Allocation Tax Grants decreased automatically. As the MHA did not revise the calculation of the Basic Financial Needs and the Basic Financial Revenue, shortfalls of local governments increased. The national government (the MOF and MHA), however, increased total amount of Local Allocation Tax Grants by an increase of borrowing in the Special Account for Grants of Allocation Tax and Transfer Taxes, as shown in Figure 1.

Under the Japanese fiscal system, the central government distributes Local Transfer Taxes, Local Allocation Tax Grants, and National Government Disbursements to local governments. Therefore, representatives of the Diet appeal to the cabinet or the central bureaucrats to distribute more in their own regions. Getting more grants is important for them to be reelected. Allocation of region-specific privileges in the form of subsidies or public works from the central government has been mainly determined by the political factor.

It should be noted that a region paid fewer national taxes has received more grants from the national government. Kanto, Tokai, and Kinki regions live about 60% of the population of Japan, and

people and firms in these regions pay about 75% of national taxes in each year. However, they have received fewer grants than people in the rural regions: Hokkaido and Tohoku, Hokuriku and Koshin'etsu, Chugoku and Shikoku, and Kyushu.

A reason why the central government distributes the grants in this way is as follows. More representatives in the ruling party, the LDP for postwar period, have been seated for the rural regions. People in the rural regions have more representatives in the ruling party than in the urban regions. The ruling party exerts an influence to decide the national budget. So the representatives for the rural regions, who affected by local interest groups and voters, put political pressure to distribute more grants to the rural regions. As shown in Doi and Ashiya (1997), a region where more representatives in the ruling party are elected for is distributed more subsidies from the central government throughout the period. It is hence important to incorporate political influence of local interest groups explicitly into the analytical framework.

Although the central government can impose the ceiling constraint on some of public spending for fiscal reconstruction, it cannot easily restrain region-specific transfers. Doi and Ihori (2002)'s empirical evidence indicates that lobbying activities of local interest groups was exaggerated in the 1990s, which is the main reason why fiscal reconstruction did not perform very well in the 1990s. They have shown that raising taxes has the similar effect as an increase in GDP for the public sector. Namely, an increase in local and/or national taxes may result in an increase in lobbying activities of local interest groups. The empirical investigation with respect to an increase in taxes is consistent with the politico-economic theoretical model developed in that paper. They have also shown that the steady-state level of government debt during fiscal reconstruction is increasing with the rate of time preference and the level of evaluation of public works, but is decreasing with the rate of interest. In particular, an increase in the evaluation coefficient is relevant since it induces an increase in lobbying activities to seek for more privileges during transition and larger deficits, while it reduces national-wide public goods. Such movements were actually observed in the 1990s when the Japanese economy suffered from a slow-down of economic growth.

In order to realize successful fiscal reconstruction, the central government needs to restrain lobbying activities of local political

groups. Seeking to enhance efficiency and transparency by a new re-assessment system of public works is important to reduce local privileges. Reforming the local allocation tax system so that each local government has to collect taxes to finance its own spending is crucial for solving the soft budget problem.

VI. Concluding Remarks

We have shown that the Japanese fiscal deficits are no longer sustainable, and hence that the Japanese government would face the severe fiscal situation in the near future. We should resume to reduce fiscal deficits as soon as possible. Before concluding the paper, let us finally examine the feasibility of fiscal consolidation in Japan. There seem to exist some political constraints to resume fiscal reconstruction attempts from the experience of the failure of the Fiscal Structural Reform Act in 1998. In Japan, the central government cannot resume to reduce fiscal deficits before recovering stable economic growth. In other words, it cannot politically change from the expansionary fiscal policy to the consolidation policy until the growth rate is held to plus without fiscal expenditure. In detail, we think that politicians can accept the idea of fiscal reconstruction only if the real GDP growth rate becomes more than 1% for 4 quarters continuously. Actually, the Japanese government planned such a change when the growth rates in the second and third quarters of 1999 were held to plus, but it could not obtain the policy goal because the growth rate became negative again, as shown in Figure 3.

Even though this condition is realized, the central government cannot purse fiscal reconstruction if another political condition is not satisfied. Namely, politicians can accept the idea of fiscal structural reform toward fiscal reconstruction only if the government party occupies majority stably in the Diet, and hence the probability of dropping power is low enough. Among others, Persson and Svensson (1989), and Alesina and Tabellini (1990) found that a stable government has an incentive to reduce government deficits. Also Alesina and Perotti (1995, 1996) reported that coalition governments in OECD countries delayed reducing fiscal deficits.

In Japan, the government party (the LDP) has been weakened and budget deficits have been increased since the late of 1970s.

The LDP swept in the general elections of the House of Representatives, and began to reduce fiscal deficits (fiscal reconstruction) in the 1980s. In the 1990s, especially after 1993, several parties formed a coalition government, and fiscal deficits increased as mentioned above. The progress in Japan fits the findings of the above theoretical and empirical works.

It is true that the current macroeconomic situation in 2003 is still severe. However, it would be also true that we would face more severe sustainability and difficult economic problems in the future since the speed of aging is very rapid and the Japanese market system is behind the 'global standard.' Even if it is needed to stimulate the aggregate demand, the traditional Keynesian policy seems ineffective. Furthermore, when the fiscal situation becomes very serious, fiscal reconstruction may stimulate private consumption and investment due to the 'non-Keynesian' effect. It seems that the 'non-Keynesian' effect has some relevancy in Japan.

An effort is being made to put an additional priority on infrastructure investment to improve the people's lives and the environment in urban area. At the same time, seeking to enhance both efficiency and transparency, the efforts to reduce costs and to utilize cost-benefit analysis have been complemented by a new re-assessment system. These changes are desirable but the speed of structural reform is not so high. Further determined efforts are needed to reform public spending and taxation in a more efficient way.

Japan's fiscal condition has deteriorated markedly over the past ten years. It is therefore imperative that deficit be reduced over an extended period. More specifically, the budget gap should be reduced gradually over the next eight years, through 2013, to a level at which the budget balance—the balance including the interest and debt servicing—maintained. To this end, the deficit as a percentage of GDP needs to be cut by 1 percentage point each year. This target should be achieved through a combination of spending cuts and tax increases.

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